

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

FEB 9 2009

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

AE-17J

Chad Erdmann
Manager, Energy and Environmental Engineering
Keystone Steel & Wire Co.
7000 S. W. Adams Street
Peoria, Illinois 61641

Re: Notice and Finding of Violation at Keystone Steel & Wire, Co., Peoria, Illinois

Dear Mr. Erdmann:

This is to advise you that the U. S. Environmental Protection Agency has determined that Keystone's facility at 7000 S.W. Adams Street, Peoria, Illinois is in violation of the Clean Air Act (CAA) and associated state pollution control requirements. A list of the requirements violated is provided below. We are today issuing to you a Notice of Violation and Finding of Violation (NOV/FOV) for these violations.

Keystone's PSD permit limits emissions of pollutants in order to help protect the public from unhealthy exposures to criteria pollutants, emissions of which contribute to respiratory problems, lung damage and premature deaths.

Based on emissions tests conducted by Keystone in December of 2007, Keystone has violated and continues to violate its emission limit for SO₂. Keystone also failed to apply for a PSD permit to modify its electric arc furnace and install additional ladle preheaters in the Arc Shop, submitted incorrect production data in its permit application, and commenced construction without a permit. Keystone additionally reported failing to monitor the pH of its scrubber in the wire galvanizing area. Accordingly, Keystone has violated the CAA and the Illinois State Implementation Program.

Section 113 of the CAA gives us several enforcement options to resolve these violations, including: issuing an administrative compliance order, issuing an administrative penalty order, bringing a judicial civil action, and bringing a judicial criminal action. Section 113 of the CAA provides you with the opportunity to request a conference with us about the violations alleged in the NOV/FOV. A conference should be requested within 10 days following receipt of this notice and any conference should be held within 30 days following receipt of this notice. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please

plan for your facility's technical and management personnel to take part in these discussions. You may have an attorney represent you at this conference.

The EPA contact in this matter is Gina Harrison. You may call her at (312) 353-6956 if you wish to request a conference. You should make your request for a conference no later than 10 calendar days after you receive this letter, and we should hold any conference within 30 calendar days of your receipt of this letter.

Sincerely,

Cheryl L. Newton

Director

Air and Radiation Division

Enclosure

cc: Ray Pilapil, Bureau of Air

Illinois Environmental Protection Agency

United States Environmental Protection Agency Region 5

IN THE MATTER OF:

Keystone Steel & Wire Co. Peoria, Illinois

NOTICE OF VIOLATION and FINDING OF VIOLATION

EPA-5-08-26-IL

Proceedings Pursuant to the Clean Air Act, 42 U.S.C. §§ 7401 et seq.

NOTICE AND FINDING OF VIOLATION

Keystone Steel & Wire (you or Keystone) owns and/or operates a steel mill located at 7000 S.W. Adams Street, Peoria, Illinois (facility). The facility includes an Electric Arc Furnace (EAF) and a Ladle Metallurgical Furnace (LMF) both located within the Arc Shop.

The U.S. Environmental Protection Agency is sending this Notice of Violation and Finding of Violation (NOV/FOV or Notice) to notify you that sulfur dioxide (SO₂) emissions from the EAF and LMF at your facility have exceeded the limits specified in your Title V permit and Prevention of Significant Deterioration (PSD) permit, which also violates the Illinois State Implementation Plan (SIP). Additionally, Keystone failed to apply for and obtain a PSD construction permit in 2002 to increase oxygen pressure and capacity in its EAF, and in 2006 to install and reconfigure oxy-fuel burners and ladle preheaters in the Arc Shop. Keystone's facility has been operating without appropriate Best Available Control Technology (BACT). These failures constitute violations of the Clean Air Act (the Act or CAA).

EPA is issuing this Notice pursuant to Sections 113(a)(1) and (a)(3) of the Act, 42 U.S.C. § 7413(a)(1) and (3). The authority to issue this Notice has been delegated to the Regional Administrator of the U.S. Environmental Protection Agency Region 5, and redelegated to the Director, Air and Radiation Division.

Applicable Permits and Regulations

Title V Requirements

1. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), provides that no source may operate without a Title V permit after the effective date of any permit program approved or promulgated under Title V of the Act. EPA first promulgated regulations governing state operating permit programs on July 21, 1992. See 57 Fed. Reg. 32295; 40 C.F.R. Part 70.

- EPA promulgated regulations governing the federal operating permit program on July 1, 1996. See 61 Fed. Reg. 34228; 40 C.F.R. Part 71.
- 2. Section 503 of the CAA, 42 U.S.C. § 7661b, sets forth the requirement to timely submit an application for a permit, including information required to be submitted with the application.
- 3. Section 504(a) of the CAA, 42 U.S.C. § 7661c(a), requires that each Title V permit include enforceable emission limitations and standards, a schedule of compliance, and other conditions necessary to assure compliance with applicable requirements, including those contained in a state implementation plan. 42 U.S.C. § 7661c(a).
- 4. 40 C.F.R. § 70.1(b) provides that: "All sources subject to these regulations shall have a permit to operate that assures compliance by the source with all applicable requirements." See also 35 IAC 201.142 -201.144.
- 5. 40 C.F.R § 70.2 defines "applicable requirement" to include "(1) Any standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA through rulemaking under Title I of the Act that implements the relevant requirements of the Act, including revisions to that plan promulgated in Part 52 of this chapter . . ."
- 6. 40 C.F.R. § 70.7(b) provides that no source subject to 40 C.F.R. Part 70 requirements may operate without a permit as specified in the Act. See also 35 IAC 201.142 201.144.
- 7. 40 C.F.R. § 70.5(a) and (c) require timely and complete permit applications for Title V permits with required information that must be submitted and 40 C.F.R. § 70.6 specifies required permit content. See also 35 IAC 201.152.
- 8. 40 C.F.R. § 70.5(b) provides that: "Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit."

Illinois' Title V Requirements

- 9. U.S. EPA promulgated partial approval of the Illinois Title V program on March 7, 1995 and full approval on December 4, 2001. See 40 C.F.R. Part 70, Appendix A. Illinois' Title V program became effective on November 30, 2001. See 66 Fed. Reg. 62946.
- 10. The Illinois regulations governing the Title V permitting program are codified at Ill. Admin. Code (IAC) Title 35, and are federally enforceable pursuant to Section 113(a)(3).

- 11. 35 IAC 201.142 -201.144 codifies the requirement of 40 C.F.R. § 70.1(b) that "All sources subject to these regulations shall have a permit to operate that assures compliance by the source with all applicable requirements."
- 12. 35 IAC 201.142 -201.144 further codifies the requirement of 40 C.F.R. § 70.7(b) that no source subject to 40 C.F.R. Part 70 requirements may operate without a permit as specified in the Act.
- 13. 35 IAC 201.152 codifies the requirements of 40 C.F.R. § 70.5(a) and (c) to submit timely and complete permit applications for Title V permits with required information that must be submitted and 40 C.F.R. § 70.6 specifies required permit content.
- 14. Pursuant to Appendix A of 40 C.F.R. Part 70, on December 4, 2001, EPA granted Illinois final approval of its Title V Clean Air Act Permit Program, effective November 30, 2001. 66 Fed Reg 62946.
- 15. Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), authorizes the Administrator to initiate an enforcement action whenever, among other things, the Administrator finds that any person has violated or is in violation of a requirement or prohibition of Title V of the CAA, or any rule or permit promulgated, issued or approved under Title V of the CAA.

Prevention of Significant Deterioration

- 16. The PSD program, found at Part C of Title I of the CAA, 42 U.S.C. §§ 7470 7479, and its implementing regulations, at 40 C.F.R. § 52.21, apply to the construction or modification of major stationary sources.
- 17. The regulations require that major stationary sources obtain a PSD permit prior to construction if the modification is major and the source is located in an area which has achieved the NAAQS for that pollutant. 40 C.F.R § 52.21.
- 18. 40 C.F.R. § 52.21(b)(2)(1) defines a "major modification" as any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under CAA.
- 19. 40 C.F.R. § 52.21(b)(1)(i)(a) defines a "major stationary source" as any stationary source within one of 28 source categories which emits, or has the potential to emit, 100 tons per year or more of any air pollutant subject to regulation under the CAA. Steel mill plants are included among the 28 source categories.
- 20. 40 C.F.R. § 52.21 further requires that a source subject to PSD regulations install and continuously apply Best Available Control Technology (BACT) to any major modification.

- 21. Both SO₂ and for NO_x are regulated pollutants under the CAA for which significant net emissions increase is defined as 40 tons per year. 40 C.F.R. § 52.21 (b)(3)(i).
- 22. 40 C.F.R. § 52.21(n) requires any applicant for a permit to modify a stationary source to provide all relevant information to allow the permitting authority to perform an analysis or make the determination required in order to issue the appropriate permit.

State Implementation Plan

- 23. Section 110(a)(1) of the CAA requires each state to adopt and submit to EPA a SIP including provisions for implementation, maintenance, and enforcement of the promulgated national ambient air quality standard (NAAQS) within the state.
- 24. On April 7, 1980, EPA incorporated the provisions of 40 C.F.R. § 52.21(b) through (w) into the Illinois SIP., codified at 40 C.F.R. § 52.738. 45 Fed. Reg. 52741 EPA delegated to the Illinois Environmental Protection Agency (IEPA) the authority to review and process PSD permit applications, and to implement the federal PSD program. 46 Fed. Reg. 9584.
- 25. On May 31, 1972, EPA approved Illinois Pollution Control Board (PCB) Rules 103 (a)(1), 103(b)(1) and 103(b)(2) as part of the federally enforceable SIP for Illinois. 37 Fed. Reg. 10842. Due to renumbering of the Illinois PCB Rules, Rules 103(a), 103(b)(1) and 103(b)(2), as approved by EPA, are currently set forth at Ill. Admin. Code (IAC) Title 35, 201.142, 201.143 and 201.144.
- 26. 35 IAC 201.142 prohibits the modification of any existing emission source or air pollution control equipment without first obtaining a construction permit from the State of Illinois.
- 27. Pursuant to 40 C.F.R. § 52.23, failure to comply with any approved regulatory provision of a SIP, or with any permit condition issued pursuant to approved or promulgated regulations for the review of new or modified stationary or indirect sources, renders the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement under Section 113 of the Act, 42 U.S.C. § 7413.

Factual Background

- 28. At all times relevant to this Notice, Keystone Steel & Wire Company has been the owner/operator of the steel mill at 7000 S.W. Adams Street, Peoria, Illinois.
- 29. The facility is a steel mill plant and is a major source, as that term is defined by 40 C.F.R. § 52.21(b)(1)(i)(a).
- 30. At the facility Keystone operates an EAF and an LMF, which are identified in its PSD and Title V permits. Both furnaces were constructed in 1987 and are located in the Arc Shop.

- 31. During all times relevant to this Notice, Keystone was located in an area classified as attainment under the NAAQS.
- 32. IEPA issued PSD Permit number 99020046 (PSD Permit) to the facility on June 1, 2000.
- 33. Section 8b of the PSD Permit limits Arc Shop SO₂ emissions to 0.20 lb/ton steel produced, and NOx emissions to 0.65 lb/ton steel produced.
- 34. IEPA issued a Title V Permit, number 95120288 (Title V Permit), to Keystone on November 26, 2003, which limits emissions to those contained in Keystone's PSD Permit. The PSD Permit is included as Attachment 7 to the Title V Permit.
- 35. Keystone's Title V Permit limits monthly steel production from the Arc Shop to 78,583 tons per month, and limits annual steel production to 820,000 tons per year.
- 36. Keystone's Title V Permit requires continuous pH monitoring of the scrubber that controls the Wire Galvanizing Frame 7 (WGF7) and Wire Galvanizing Frame 15 (WGF15) units in the Wire Galvanizing area.
- 37. Keystone submitted a Compliance Certification Report to IEPA on April 30, 2004. The Compliance Certification Report indicates that from November 26, 2003, to April 30, 2004, Keystone did not monitor the pH of the scrubber that controls WGF7 and WGF15.
- 38. Keystone submitted a Construction Permit application on July 27, 2006, seeking to install two ladle preheaters in the Arc Shop (ladle preheater project).
- 39. Keystone's netting calculations submitted in its Construction Permit application for the ladle preheater project showed a potential NOx increase of 13.14 tons per year.
- 40. Keystone's application for the ladle preheater project did not include netting calculations for volatile organic compounds (VOCs), SO₂, or particulate matter (PM).
- 41. IEPA issued Construction Permit number 06070069 on August 23, 2006 for the ladle preheater project. The permit allowed the installation of two ladle preheaters in the Arc Shop.
- 42. Keystone submitted a Construction Permit application on February 16, 2007, seeking installation and reconfiguration of oxy fuel burners (oxy fuel burner project) in the Arc Shop.
- 43. The Construction Permit application for the oxy fuel burner project did not mention the ladle preheater project, nor did it account for the additional emissions from the ladle preheater project.

- 44. Keystone's netting calculations submitted in its Construction Permit application for the oxy fuel burner project showed a potential NOx increase of 30.02 tons per year.
- 45. Keystone indicated in its Construction Permit application for the oxy fuel burner project that operations staff in the Arc Shop had installed a fifth oxy-fuel burner in the EAF prior to obtaining or applying for a Construction Permit.
- 46. In its application for Construction Permit 07020055, Keystone reported 81,935 tons of production from the Arc Shop in April of 2002.
- 47. IEPA issued Construction Permit 07020055 on August 2, 2007, for the oxy fuel burner project which allowed the installation and reconfiguration of oxy-fuel burners not to exceed a combined heating capacity of 100 mmBtu/hr.
- 48. Keystone conducted emissions testing on the Arc Shop from December 17-18, 2007, and submitted a Compliance Test Report to IEPA on February 15, 2008.
- 49. Keystone's Compliance Test Report showed SO₂ emissions of 0.42 lb/ton from the Arc Shop.
- 50. Keystone submitted its 2007 Compliance Certification report to EPA on April 18, 2008.
- 51. EPA issued Section 114 Information Requests to Keystone on September 17, 2008, and November 17, 2008.
- 52. Keystone responded to the Section 114 Information Requests on October 9, 2008, November 7, 2008, and December 15, 2008.
- 53. In its October 9, 2008, response, Keystone submitted revised production data in place of production data submitted previously in its application for Construction Permit 07020055.
- 54. In its October 9, 2008, response, Keystone submitted revised netting calculations for Permit 07020055 based on production data in tons per calendar month.
- 55. Keystone's revised netting calculations for Permit 07020055 show a potential NOx increase of 32.80 tons per year.
- 56. Based on the information reported in its 114 response on December 15, 2008, Keystone completed projects in 2000 and 2002 in order to raise oxygen pressure and increase oxygen capacity and combustion efficiency in its EAF (oxygen delivery projects).
- 57. Keystone neither applied for nor obtained construction permits for the oxygen delivery projects completed in 2000 and 2002.

58. Keystone did not calculate potential emission increases for the oxygen delivery projects prior to commencing construction.

Violations of Emissions Limits and Monitoring Requirements

- 59. Keystone's excess SO₂ emissions from the Arc Shop are violations of its PSD Permit, its Title V Permit, and the Illinois SIP.
- 60. Keystone's failure to monitor and record the pH of the scrubber that controls the affected WGF7 and WGF15 is a violation of its Title V Permit.

Violations of Title V and PSD

- 61. Keystone increased oxygen pressure and capacity in its EAF in 2000 and 2002 through its oxygen delivery projects without demonstrating that these increases would not cause an increase in emissions from the Arc Shop.
- 62. These oxygen delivery projects caused a significant net emissions increase of greater than 40 tons per year of SO₂ from the Arc Shop. 40 C.F.R. §§ 52.21(b)(3)(i) and (b)(23)(i),
- 63. The ladle preheater and oxy-fuel burner projects were contemporaneous projects that were projected to cause a significant net emissions increase of greater than 40 tons per year of nitrogen oxides (NOx) from the Arc Shop and thus constitute a major modification.
- 64. Keystone failed to demonstrate that allowable emission increases from the proposed projects or modifications, in conjunction with all other applicable emissions increases (including secondary emissions), would not cause or contribute to air pollution in violation of (1) any national ambient air quality standard (NAAQS) in any air quality control region; or (2) any applicable maximum allowable increase over the baseline concentration in any area, in violation of 40 C.F.R. § 52.21(k).
- 65. Keystone violated and continues to violate Section 165(a) of the Act, 42 U.S.C. § 7475(a), and 40 C.F.R. § 52.21(i)(1) by constructing a major modification in the Arc Shop without applying for or obtaining a PSD permit and by operating the modified facilities without installing BACT.
- 66. Keystone's submission of erroneous production data to IEPA in its application for Construction Permit 07020055 is a violation of 40 C.F.R. § 52.21(n).
- 67. Keystone's failure to include contemporaneous emission increases from the ladle preheater project application in its application to install oxy-fuel burners is a violation of 40 C.F.R. § 52.21(n).

- 68. Keystone's installation of a fifth oxy-fuel burner in the EAF prior to obtaining a construction permit is a violation of the Illinois SIP and 40 C.F.R. § 52.21(i) through (r).
- 69. Keystone's failure to provide netting analysis for VOCs, SO₂, and PM in its ladle preheater project permit application is a violation of 40 C.F.R. § 52.21(i) through (r).
- 70. Since November 23, 2003, Keystone has failed to submit timely and complete Title V permit applications with information pertaining to the modifications identified in Paragraphs 61-69 and with information concerning all applicable requirements, including, but not limited to, the requirement to apply, install and operate BACT for NO_X, SO₂ and/or PM at the plants and also failed to supplement or correct the Title V permit applications for these plants in violation of Sections 502, 503 and 504 of the Act, 42 U.S.C. §§ 7661a, 7661b and 7661c; the regulations at 40 C.F.R. Part 70, including, but not limited to, 40 C.F.R. §§ 70.1(b), 70.5(a), (b) and (c), 70.6 and 70.7(b); and the Illinois Title V provisions at 35 IAC 201-142 201.144.

Environmental Impact of Violations

71. Excess emissions of SO₂ increase the amount of acid rain and public exposure to unhealthy levels of SO₂. SO₂ reacts with other chemicals in the air to form tiny sulfate particles. Long term exposure to high levels of SO₂ gas and particles can cause respiratory illness, aggravate existing heart disease, and lead to premature death.

Date

cheryl L. Newton

Director

Air and Radiation Division

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Notice and Finding of Violation, No. EPA-5-09-26-IL, by Certified Mail, Return Receipt Requested, to:

Chad Erdmann Keystone Steel & Wire Co. 7000 S. W. Adams Street Peoria, Illinois 61641

I also certify that I sent copies of the Notice of Violation and Finding of Violation by first class mail to:

Ray Pilapil Bureau of Air Illinois Environmental Protection Agency P.O. Box 19276 Springfield, Illinois 62794-9276

on the 10 day of <u>Feb</u>, 2009.

CERTIFIED MAIL RECEIPT NUMBER: 7001 0320 0004 0186 0545